# ECONOMIC STUDY OF THE YUKON PLACER AUTHORIZATION REVIEW

## By BDO Dunwoody LLP

Ross Perkin, CA
Rick Hirtle, CA
BDO Dunwoody LLP
Chartered Accountants
300-272 Victoria St.
Kamloops, BC V2C 1Z6

March 25, 2002

# TABLE OF CONTENTS


| | Page No |
|---|---|
| Executive Summary | 3 |
| Objective | 4 |
| Terms of Reference | 4 |
| Approach | 5 |
| Analysis of Survey Information | |
| Profile | 6 |
| Economic impact | 9 |
| Cost of YPA | 10 |
| Impact of Gold Price Changes | 12 |
| Impact of Diesel Fuel Prices | 14 |
| Additional comments | 14 |
| The Future of Gold | 15 |
| Summary | 17 |
| Appendix A – Summary of Survey Results | 18-33 |
| Appendix B – Yukon Placer Mining Survey | 34-43 |

## EXECUTIVE SUMMARY

The Yukon Placer Authority (YPA) is currently under review. The consultants were requested by the Yukon Government on behalf of the Yukon Placer Committee (YPC) to determine:

- the economic impact of placer mining operations on the Yukon economy
- The impact on gold prices and fuel costs on placer mining operations
- The costs associated with compliance with the Yukon Placer Authorization
- The impact of the Yukon Placer Authorization on the ability to mine new areas

The consultants decided a confidential survey sent to all placer mines located in the Yukon would be a reasonable way to extract information about mining operations. A survey was developed by the consultant with input from several Yukon Placer Committee members.

Survey results indicated that the placer mining industry is a major player in the Yukon economy. In 2000 the industry had an economic impact of between $30.6 and $58.2 before considering the cost and economic impact of government regulation.

The survey indicates that placer operations are extremely sensitive to the price of gold and the price of diesel fuel. A decrease in gold prices by $25cdn would cause more than 30% of the industry to shut down temporarily or go out of business, and a $100cdn decline in the price of gold would result in almost 70% of the industry to either temporarily shut down or go out of business.

On a more positive note an increase in gold prices by $50cdn would cause 28% of miners to mine lower grades and 11% to increase capital expenditures. An increase in gold prices by $125cdn would cause 19% of operations to increase production and hire new staff. In addition 16% of operations would increase capital expenditures.

Diesel fuel prices have a similar impact on the industry. A price increase of 25 cents a liter would cause most operations to mine only high grade areas, temporarily shut down, or slow production. An increase of 75 cents a liter would shut down virtually all operations.

The YPA has significantly increased the cost of placer mining in the Yukon and survey results vary significantly from operation to operation. However, based on the information received from placer miners in the surveys, approximately 7.4% of placer mine operating costs relate to compliance with the YPA.

The major impact of the YPA on the ability to mine new areas of the Yukon appears to relate to the length of time it currently takes to get a stream classification. Survey results indicate it can take as long as five years to get a stream classified, which makes it very difficult for operators to move into new areas or for a new mine to open.

## OBJECTIVE

The Yukon Placer Authorization (YPA) is under review. The terms of reference for the Yukon Placer Committee (YPC) include a requirement to conduct a comprehensive review of the economic implications of the Authorization.

The purpose of this work is to assist the committee in understanding the economic implications of the existing Yukon Placer Authorization.

## TERMS OF REFERENCE

A wide range of information was requested in the original terms of reference that were provided to us. It became apparent from discussions with committee members that resources were not available to perform all items as outlined in the original terms of reference. Accordingly, the consultants agreed to the terms of reference as outlined below:

- Review current economic conditions for mining in the Yukon. Determine the impact of low gold prices and high fuel costs.

- Determine as well as possible the direct cost to mining operations of compliance with the authorization, including costs associated with construction of tailing facilities to achieve a variety of discharge standards and restoration costs upon the cessation of mining.

- Determine impact of committee business on placer operations with regard to the ability to mine new areas.

It is beyond the terms of reference of this project to determine the cost or economic impact of government regulation of the placer mining industry.

## APPROACH

The consultant began by reviewing the Yukon Placer Authorization, and a previous study called the 'Economic Profile of the Yukon Placer Mining Industry' prepared by ARA Consulting Group Inc. in May of 1991. The consultants decided that a survey should be developed and sent to Yukon miners requesting information that would allow the consultants to comply with the terms of reference.

The survey is attached as Appendix B of this report and was developed in consultation between Rick Hirtle a partner from BDO Dunwoody LLP, the consultants, Al Kapty, Chairman of the Yukon Placer Committee, Dave Latoski, Regional Manager of Mining, Inspection Division DIAND, Jesse Duke Mining Facilitator for the Yukon Government, and the KPMA.

The survey was then sent to all Yukon Placer miners with the assistance of the Klondike Placer Miners Association and the Dawson City and Whitehorse Mining Recorder offices. The surveys were initially sent out in early September. We got very poor response until late October as most miners were still in operation until that timeframe. In order to ensure we received a representative sample of miners we had to make many requests to miners to complete the surveys. We closed off receipt of surveys on January 15, 2002. At that time we had received 33 surveys' back.

Results of the survey are outlined in Appendix A.

## ANALYSIS OF SURVEY INFORMATION

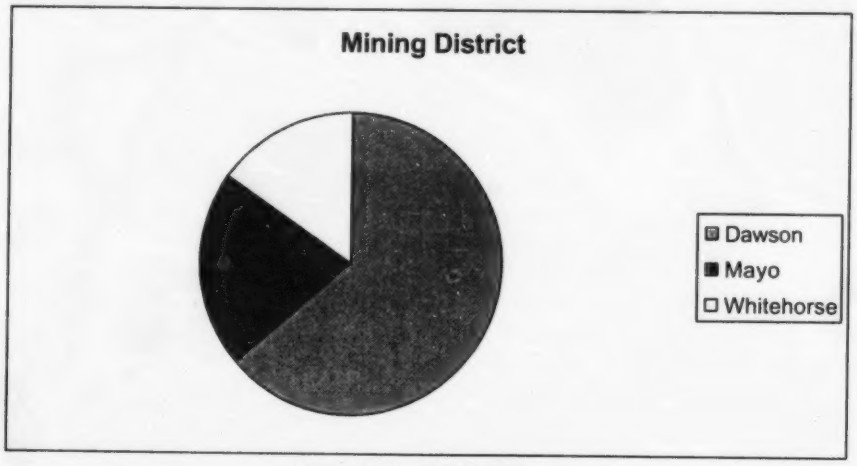
### Profile

The bulk of the time spent on this study was spent developing the miner survey, getting the survey out to as many miners' as possible, (this was done with the assistance of the KPMA and the Dawson City and Whitehorse Mining Recorder offices), chasing down responses from miners, sending out surveys for a second and third time, entering dated received into a master spreadsheet and summarizing the date received as shown in Appendix A.

Surveys were sent to 148 placer operations. Virtually no surveys were returned until November, and most of the surveys obtained after that date were received after many requests.

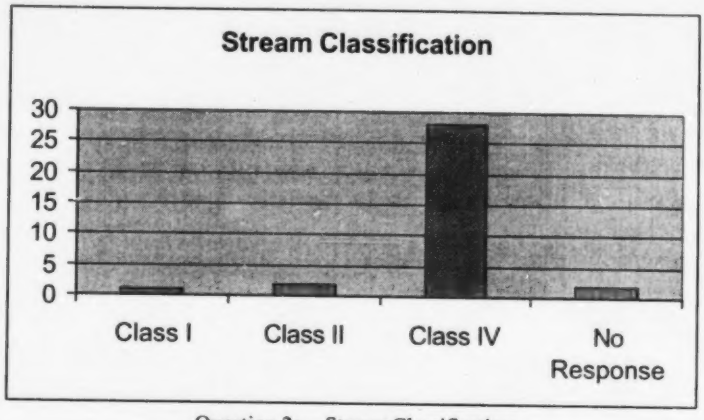
The quality of the surveys varied wildly. Some surveys had excellent detail, others had very limited detail. There were also inconsistencies within the survey answers. For example, 24 of 33 respondents state they operated in 2000, yet 28 respondents state they shut down operations in September or October 2000. There are a number of these inconsistencies in the survey results. The inconsistencies could be created by a misunderstanding of survey questions, or a lack of detailed financial and production records on the part of the miners. We reported the results as they were listed on the surveys.

Survey results were received from placer miners in Dawson, Mayo, and Whitehorse, and from miners with class I, II, and IV stream classifications. 21 of the respondents were from the Dawson District, 7 from the Mayo District and 5 from the Whitehorse District.



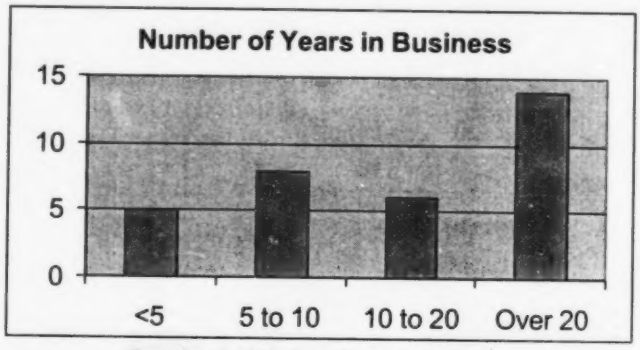

Question 1 – Mining District

28 of the respondents had a Class IV stream classification, 2 had a Class II stream classification, 1 had a Class I stream classification, and 2 did not respond to the questions.



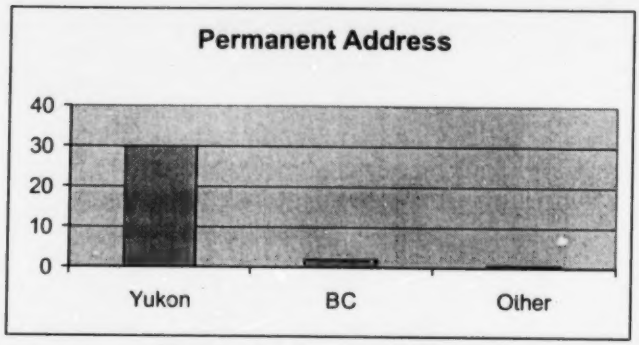

Question 2a – Stream Classification

24 of the 33 respondents operated mines in 2000 but only 12 operated in 2001. Many respondents have operated their mines for over 20 years while only 5 of 33 have operated for less than 5 years. This indicates that most Yukon Placer miners have been around for a long time and are committed to the industry.

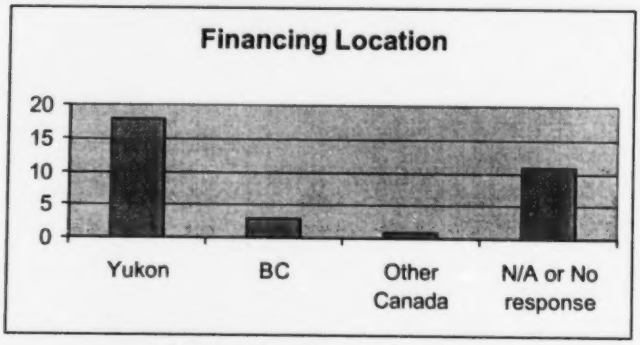



Question 4 – Number of Years in Business

Most of the mines still operating are of a small scale. The remaining miners appear to be committed to the industry for the long haul. It is significant to note that 30 of the 33 miners list the Yukon as their permanent residence and 21 of the respondents' winter in the Yukon. There was a misconception among some members of the YPC that a high percentage of people in the Yukon placer mining industry were only summer residents and therefore not Yukon taxpayers. Based on survey results this is not the case.

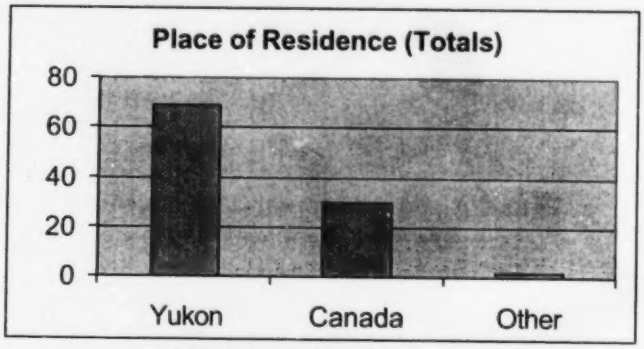



Question 7a – Permanent Address




Question 7b – Financing Location

The results obtained in question 14 about employees' residency further support the high percentage of miners that reside in the Yukon. Over 68% of employees winter and pay taxes in the Yukon.

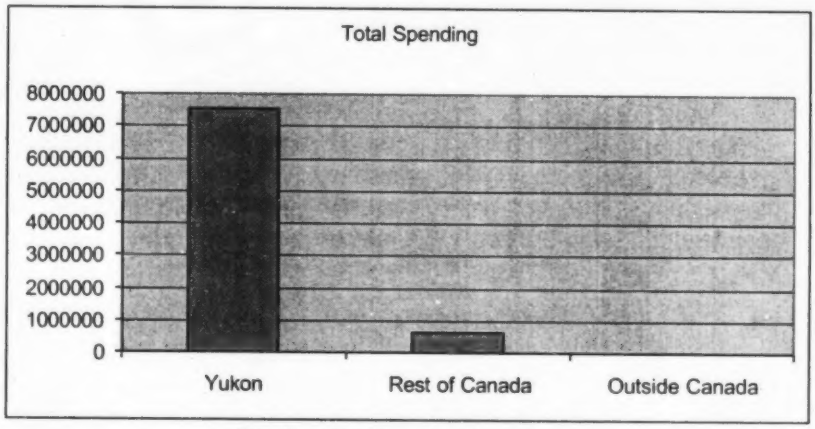



Question 14 – Place of Residence

## Economic Impact

Survey results indicate that the mining industry has a significant impact on the Yukon economy. The 33 respondents have purchased over $15.1 million of heavy equipment since 1990 of which 47% was purchased in the Yukon and only 10.6% of the purchases were from out of the country. In addition 101 people were employed by the respondents in 2000 and produced a payroll of $2,241,000. In 18 of 33 cases the payroll listed did not include payments to owners, and in 7 of 33 cases it did not include remuneration to family members. We anticipate that if salary and wages were included for family members and owners the aforementioned payroll number would increase significantly.

The 24 placer miners that operated in 2000 spent $8,225,000 on operating expenses of which almost 92% was spent in the Yukon. Expenditures were split between wages and salaries, claim/royalties, fuel and lubricants, equipment repair and maintenance, equipment lease or rental, accommodation and food/camp, permits and licenses, and other.




Question 18 – Operating Expenditures

If the results listed above are extrapolated over the population of 148 placer operations listed in Yukon placer mining recorder offices, it indicates the Yukon placer mining industry generated between $25.1 and $48.7 million annually in direct economic activity in 2000. This statement can be made using a standard error of $79,508 and a confidence level of 70%.

Based on 92% of this activity being in the Yukon as indicated in survey question 18, the industry would produce between $23.5 and $44.8 million annually in direct economic activity. Using a multiplier of 1.3* the annual economic activity produced by the mining industry in 2000 was between $30.6 and $58.2 million.

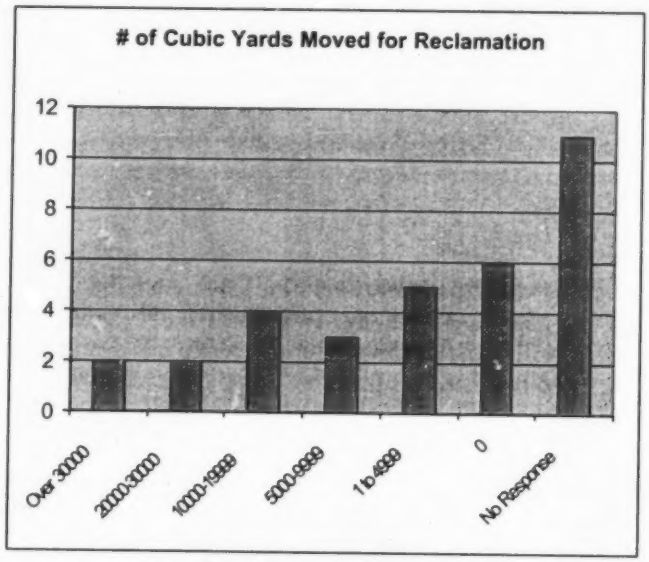
* In order to determine a reasonable multiplier to use to apply to the economic impact as provided above the consultant contacted Gordon Tarzwell B.A., M.A., Ph.D, Chair of the Department of Economics at the University College of the Cariboo. Dr. Tarzwell received his Doctorate from Queens University in Kingston, Ontario. Dr. Tarzwell stated

that in his professional opinion a multiplier that falls between 1.2 and 1.4 would be an appropriate multiplier for expenditures of mining companies. Accordingly, the consultant used a multiplier of 1.3 the mid-point of the range. Please note, the multiplier is applied to all direct operating expenditures, not only wages as is often the case.

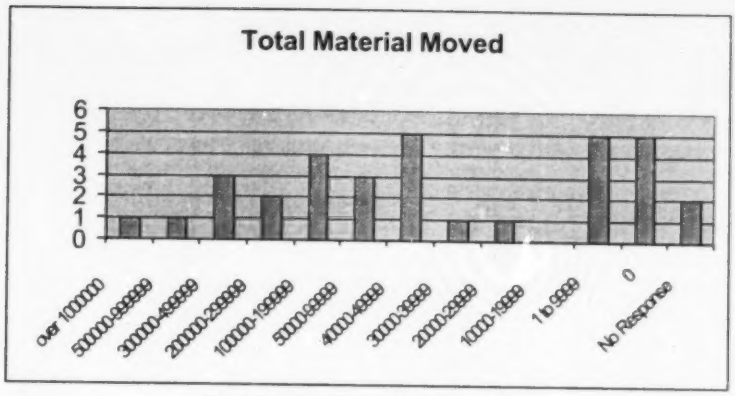
**Cost of YPA**

The costs of complying with 1993 YPA requirements, and annual YPA discharge standards, seasonal restoration, and final restoration were often not answered in the surveys. It appears most operations do not have sophisticated enough financial records to accurately determine the costs. In the cases where responses were given the costs of complying with 1993 YPA requirements varies from under $5,000 to over $100,000, and the annual compliance costs vary from under $5,000 to over $140,000.

It should be noted that 8 of the 13 respondents in this area of the survey believe they have become unprofitable due to the YPA.
Based on limited responses to survey questions 9c) and 9d) average cubic yards of material moved for reclamation purposes were 13,750, and average cubic yards of total material moved were 186,000. Assuming the cost of moving total material is a reasonable measure of the total cost of a placer mining operation then average cubic yards of material moved for reclamation purposes over total cubic yards of material moved for all purposes (13,750/186,000) would indicate that the cost of reclamation is approximately 7.4% of the cost of mining operations.




Question 9c - Reclamation

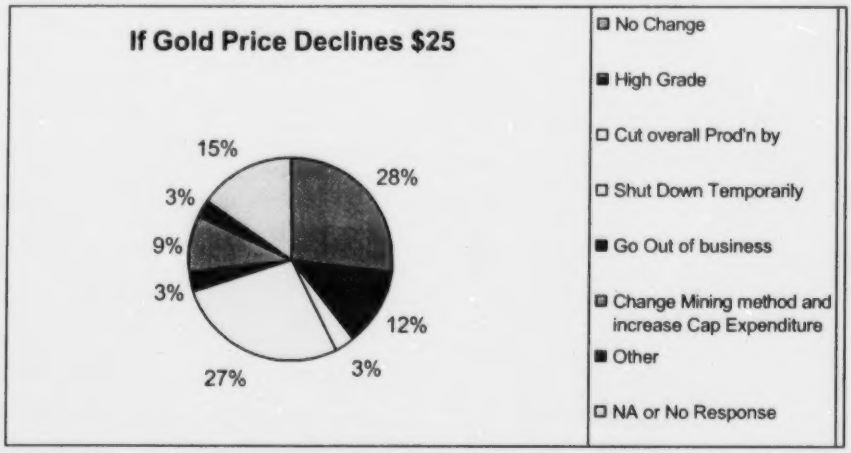



Question 9d – Total Material Moved

All 29 respondents who answered the question believe they are in compliance with the YPA guideline, 10 believe the guideline has had a negative impact on their operations, 12 believe the YPA has had very little or a positive impact, and the rest had no response.

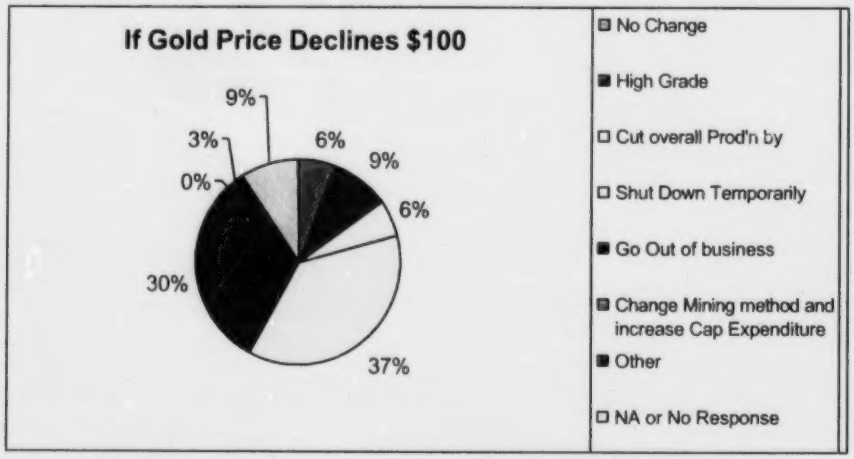
## Impact of Gold Price Changes

Based on survey results the price of gold has a huge impact on whether or not the operations are viable. A $25 decline in the price would cause 10 of the operations to either temporarily shut down or go out of business, there would be no change to the operations of 9 mines and 4 would only mine high grade areas.



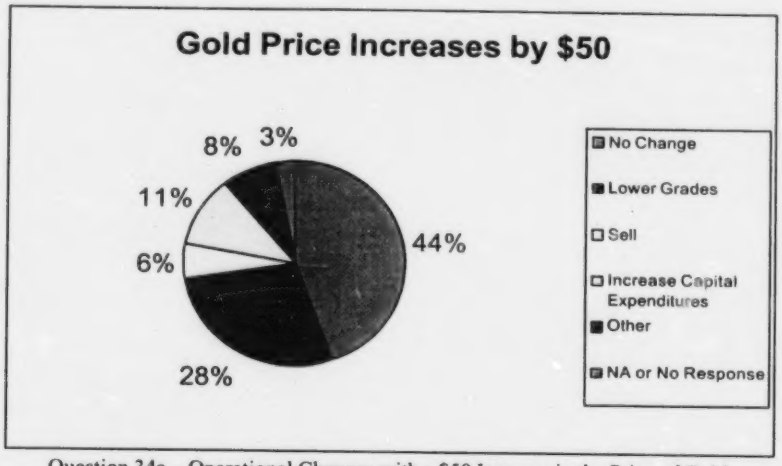

Question 33a – Operational Changes with a $25 Decrease in the Price of Gold

A $100 decline would cause virtually all operations to either go out of business or temporarily shut down. Based on commentary that came with the surveys most miners believe they have done all they can to make their operations efficient. A price decline of this magnitude would likely signal the end of the Yukon placer mining industry.



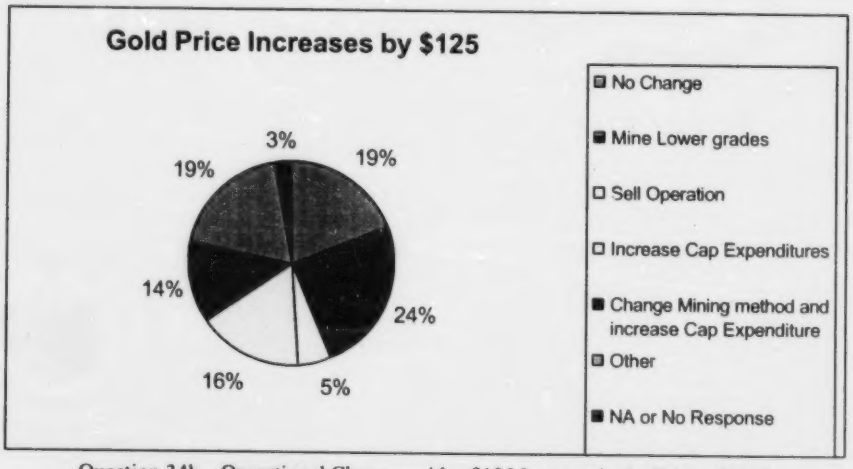

Question 33b – Operational Changes with a $100 Decrease in the Price of Gold

On a positive note, if prices for gold increase by $50,some miners will mine lower grade areas and increase capital expenditures as indicated below.




Question 34a – Operational Changes with a $50 Increase in the Price of Gold

If prices increased by $125, as miners become more optimistic they would increase capital expenditures and a significant number of respondents said they would increase production and/or hire more staff.




Question 34b – Operational Changes with a $125 Increase in the Price of Gold

### Impact of Diesel Fuel Prices

The price of diesel fuel also has a significant impact on operations. A price increase of $.25 would cause most operations to mine only higher grade areas, shut down, or slow production. A price increase of $.75 would shut down virtually all operations.

### Additional Comments

Miners were asked for additional comments at the end of their surveys. The common theme expressed is about the excessive length of time it takes to get a stream classification or deferral. It appears in some cases it takes as long as 5 years to get a stream classified, which makes it very difficult for operators to move into new areas or for a new mine to open up.

## THE FUTURE OF GOLD

There are several factors that affect the valuation of gold in the global market. The global economy, political interventions, investment trends, currency trends, and gold's intrinsic value all affect the valuation of this precious commodity. The following is a summary of the future outlook of gold taking into consideration the aforementioned factors.

The state of the global economy predominantly affects the price of gold. Gold's old role as safe-haven investment in times of economic or political turmoil has been replaced and more than off-set by an increased use of gold in jewellery and other products. The current slowdown in global economy has caused a decline in the demand for gold products, primarily jewellery. Experts predict the global economy will bounce back during the latter half of 2002, and continue an overall growth into the next 3-5 years. This economic pick-up will in turn produce disposable income for the consumer, thus increasing the demand for jewellery. (Alexander, 2002)

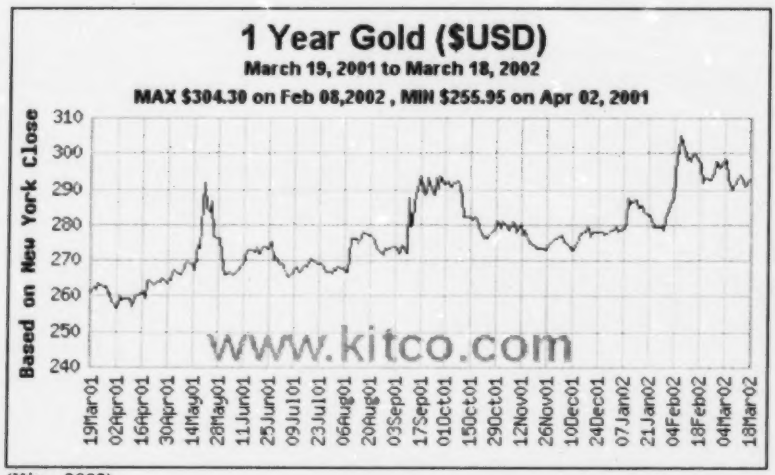
Political interventions have long played a role in gold valuation. In March 2002, the United Kingdom's reduction of its official gold reserves ended. This, in combination with the European & United States' central banks' agreement to limit their combined annual sales to a maximum of 400 tonnes a year until September 2004, will shorten the supply of gold in the global market, favouring the future price of bullion. (Alexander, 2002)

Investment trends are another factor affecting gold valuation. There are high expectations in the gold market that gold mining companies will discontinue the hedging of gold. The hedging of gold depressed prices in the past and a discontinued practice will allow the opportunity for a stronger gold price. (Alexander, 2002)

Currency trends can alter the valuation of gold. Gold is most often expressed in terms of US dollars. The current overvaluation of the US currency is concurrently undervaluing the value of gold on a trade-weighted basis. Once the US currency falls to an accurate valuation, the value of gold is expected to increase on the trade-weighted basis previously mentioned. (Alexander, 2002)

Another factor that affects the future valuation of gold in addition to those mentioned above is gold's 'safe haven' property. Despite gold's role shift to jewellery component, the long held 'safe haven' role was identifiable after the September 11$^{th}$ attacks. A number of countries saw a surge in investment demand in the weeks following the terrorist attacks. It is this 'safe haven' property of gold that will keep its allure in the future. The Enron scandal had a similar affect on gold. The corporate accounting irregularities that were exposed from the collapse on Enron pushed many investors, turned off of the insecurity of corporate investments, towards the 'safe haven'. (World Gold Council 2002)

To conclude, the future outlook of gold is promising. Despite the frequent pullbacks attributed to profit-taking by speculators, a rebounding global economy, reduced political interventions, investment trends, and gold's lucrative safety feature all point towards a strong gold in the future, estimated to rise from US$292 in March 2002 and reach approximately US$320 by 2004. (Alexander, 2002)



(Kitco 2002)

**WORKS CITED**

Alexander, Craig, Kalevar, Priscila. TD Commodity Price Report, *TD Economics*, March 6, 2002, from http://www.td.com/economics/commodity/cpr0302.html

Alexander, Craig, , Kalevar, Priscila. Focus on the economy: Gold prices regain some luster, 2002, *TD Economics,* from http://www.td.com/economics/

World Gold Council, Gold Demand Trends, Issue #38 February 2002, *Gold Demand in 2001,* from http://www.gold.org/finalgold/gold/Gedt/Gdt38/GDT_No_381.pdf

Kitco 1 yr Gold Chart from http://www.kitco.com/

## SUMMARY

During the course of this study it became apparent that the mining industry has a significant positive impact on the economy of the Yukon. Only 22% of the surveys' sent were responded to. However, in 2000 this small group contributed approximately $8 million in direct spending to the Yukon economy. When extrapolated over the entire population and considering the multiplier effect it results in an annual economic impact to the Yukon Territory of between $30.6 and $58.2 million. The placer mining industry is a major player in the Yukon economy.

M121

IMPORTANT NOTE CONCERNING THE FOLLOWING PAGES

THE PAGES WHICH FOLLOW HAVE BEEN FILMED TWICE IN ORDER TO OBTAIN THE BEST REPRODUCTIVE QUALITY

USERS SHOULD CONSULT ALL THE PAGES REPRODUCED ON THE FICHE IN ORDER TO OBTAIN A COMPLETE READING OF THE TEXT.

---

REMARQUE IMPORTANTE CONCERNANT LES PAGES QUI SUIVENT

LES PAGES SUIVANTES ONT ÉTÉ REPRODUITES EN DOUBLE AFIN D'AMÉLIORER LA QUALITÉ DE REPRODUCTION

LES UTILISATEURS DOIVENT CONSULTER TOUTES LES PAGES REPRODUITES SUR LA FICHE AFIN D'OBTENIR LA LECTURE DU TEXTE INTÉGRAL

Micromedia
ProQuest

20 Victoria Street
Toronto, Ontario M5C 2N8
Tel.: (416) 362-5211
Toll Free: 1-800-387-2689
Fax: (416) 362-6161
Email: info@micromedia.on.ca

## APPENDIX A

# SECTION A - IDENTIFICATION

**1.) In what mining district are you situated?**

| | |
|---|---|
| Dawson | 21 |
| Mayo | |
| Whitehorse | |

**2a.) What is the stream classification on which you are located?**

| | |
|---|---|
| Class I | 1 |
| Class II | |
| Class IV | 2 |
| No Response | |

**2b.) Do you have a deferral?**

| | |
|---|---|
| No | 1 |
| Yes | |
| No Response | 1 |

**3.) Was this operation producing gold:**

**in 2001?**

| | |
|---|---|
| Yes | 1 |
| No | 21 |
| No Response | |

**in 2000?**

| | |
|---|---|
| Yes | 2 |
| No | |
| No Response | |

**in 1999?**

| | |
|---|---|
| Yes | 2 |
| No | |
| No Response | |

**in 1998?**

| | |
|---|---|
| Yes | 2 |
| No | |
| No Response | |

**in 1997?**

| | |
|---|---|
| Yes | 1 |
| No | |
| No Response | |

## SECTION B - BACKGROUND

**4.) How many years has your company been in business?**

| | |
|---|---|
| <5 | |
| 5 to 10 | |
| 10 to 20 | |
| Over 20 | 1 |

**5.) What best describes the arrangement of your operation?**

| | |
|---|---|
| Incorporated Business | |
| Incorporated Family Business | |
| Partnership | |
| Unincorporated Business | |
| Unincorporated Family Busines | 1 |

**6.) In 2000 did you lease property of claims worked or were you the owner?**

| | |
|---|---|
| Combination | |
| Leaseholder | |
| Owner | 1 |
| No Response | |

**7a.) Where is your permanent address?**

| | |
|---|---|
| Yukon | 3 |
| BC | |
| Other | 1 |

**7b.) Where was financing arranged?**

| | |
|---|---|
| Yukon | 1 |
| BC | |
| Other Canada | 1 |
| N/A or No response | 11 |

**7c.) Where do you reside over winter?**

| | |
|---|---|
| BC | |
| Other - USA | 1 |
| Other | |
| Yukon | 21 |

## APPENDIX A

# SECTION A - IDENTIFICATION

**1.) In what mining district are you situated?**

| | |
|---|---|
| Dawson | 21 |
| Mayo | |
| Whitehorse | |

**2a.) What is the stream classification on which you are located?**

| | |
|---|---|
| Class I | 1 |
| Class II | |
| Class IV | 2 |
| No Response | |

**2b.) Do you have a deferral?**

| | |
|---|---|
| No | 1 |
| Yes | |
| No Response | 1 |

**3.) Was this operation producing gold:**

**in 2001?**

| | |
|---|---|
| Yes | 1 |
| No | 21 |
| No Response | |

**in 2000?**

| | |
|---|---|
| Yes | 2 |
| No | |
| No Response | |

**in 1999?**

| | |
|---|---|
| Yes | 2 |
| No | |
| No Response | |

**in 1998?**

| | |
|---|---|
| Yes | 2 |
| No | |
| No Response | |

**in 1997?**

| | |
|---|---|
| Yes | 1 |
| No | |
| No Response | |

## SECTION B - BACKGROUND

**4.) How many years has your company been in business?**

| | |
|---|---|
| <5 | |
| 5 to 10 | |
| 10 to 20 | |
| Over 20 | 1 |

**5.) What best describes the arrangement of your operation?**

| | |
|---|---|
| Incorporated Business | |
| Incorporated Family Business | |
| Partnership | |
| Unincorporated Business | |
| Unincorporated Family Busines | 1 |

**6.) In 2000 did you lease property of claims worked or were you the owner?**

| | |
|---|---|
| Combination | |
| Leaseholder | |
| Owner | 1 |
| No Response | |

**7a.) Where is your permanent address?**

| | |
|---|---|
| Yukon | 3 |
| BC | |
| Other | 1 |

**7b.) Where was financing arranged?**

| | |
|---|---|
| Yukon | 1 |
| BC | |
| Other Canada | 1 |
| N/A or No response | 11 |

**7c.) Where do you reside over winter?**

| | |
|---|---|
| BC | |
| Other - USA | 1 |
| Other | |
| Yukon | 21 |

## SECTION C - 2000 OPERATIONS

**8a.) On what day in 2000 did you begin placer mining operation in the Yukon? (include mobilization, stripping, and other mining-related operations)**

| | |
|---|---|
| February | 1 |
| March | |
| April | 11 |
| May | |
| June | 1 |
| July | |
| No Response or N/A | |

**8b.) When did operations shut down in 2000?**

| | |
|---|---|
| Sept | 1 |
| Oct | 1 |
| No Response or N/A | |

**8c.) How many days did you sluice or otherwise process gravel?**

| | |
|---|---|
| Over 70 | |
| 60-69 | |
| 50-59 | |
| 40-49 | |
| 30-39 | |
| 25-29 | |
| 0 | |
| No response or N/A | |

**9a.) How many cubic yards of gravel did you process or sluice?**

| | |
|---|---|
| Over 400000 | |
| 70000-100000 | |
| 60000-69999 | 1 |
| 50000-59999 | 1 |
| 40000-49999 | 1 |
| 30000-39999 | |
| 25000-29999 | |
| 20000-24999 | |
| 15000-19999 | |
| 10000-14999 | |
| Under 10000 | |
| No Response | |

**9b.) How many cubic yards of waste did you strip?**

| | |
|---|---|
| Over 200000 | |
| 90000 | 1 |
| 60000-69999 | |
| 50000-59999 | 1 |
| 40000-49999 | |
| 30000-39999 | 1 |
| 20000-29999 | |
| 15000-19999 | 1 |
| 10000-14999 | 1 |
| 5000-9999 | |
| Under 5000 | |
| No response | |

**9c.) How many cubic yards of material did you move for reclamation purposes?**

| | |
|---|---|
| Over 30000 | |
| 20000-30000 | |
| 10000-19999 | |
| 5000-9999 | |
| 1 to 4999 | |
| 0 | |
| No Response | 11 |

**9d.) How many cubic yards of total material did you move?**

| | |
|---|---|
| over 1000000 | 1 |
| 500000-999999 | 1 |
| 300000-499999 | |
| 200000-299999 | |
| 100000-199999 | |
| 50000-99999 | |
| 40000-49999 | |
| 30000-39999 | 1 |
| 20000-29999 | 1 |
| 10000-19999 | |
| 1 to 9999 | |
| 0 | |
| No Response | |

**9e.) Is the yardage bank or loose?**

| | |
|---|---|
| Bank | 11 |
| Loose | 1 |
| No Response | |

## SECTION C - 2000 OPERATIONS

**8a.) On what day in 2000 did you begin placer mining operation in the Yukon? (include mobilization, stripping, and other mining-related operations)**

| | |
|---|---|
| February | 1 |
| March | |
| April | 11 |
| May | |
| June | 1 |
| July | |
| No Response or N/A | |

**8b.) When did operations shut down in 2000?**

| | |
|---|---|
| Sept | 1 |
| Oct | 1 |
| No Response or N/A | |

**8c.) How many days did you sluice or otherwise process gravel?**

| | |
|---|---|
| Over 70 | |
| 60-69 | |
| 50-59 | |
| 40-49 | |
| 30-39 | |
| 25-29 | |
| 0 | |
| No response or N/A | |

**9a.) How many cubic yards of gravel did you process or sluice?**

| | |
|---|---|
| Over 400000 | |
| 70000-100000 | |
| 60000-69999 | 1 |
| 50000-59999 | 1 |
| 40000-49999 | 1 |
| 30000-39999 | |
| 25000-29999 | |
| 20000-24999 | |
| 15000-19999 | |
| 10000-14999 | |
| Under 10000 | |
| No Response | |

**9b.) How many cubic yards of waste did you strip?**

| | |
|---|---|
| Over 200000 | |
| 90000 | 1 |
| 60000-69999 | |
| 50000-59999 | 1 |
| 40000-49999 | |
| 30000-39999 | 1 |
| 20000-29999 | |
| 15000-19999 | 1 |
| 10000-14999 | 1 |
| 5000-9999 | |
| Under 5000 | |
| No response | |

**9c.) How many cubic yards of material did you move for reclamation purposes?**

| | |
|---|---|
| Over 30000 | |
| 20000-30000 | |
| 10000-19999 | |
| 5000-9999 | |
| 1 to 4999 | |
| 0 | |
| No Response | 11 |

**9d.) How many cubic yards of total material did you move?**

| | |
|---|---|
| over 1000000 | 1 |
| 500000-999999 | 1 |
| 300000-499999 | |
| 200000-299999 | |
| 100000-199999 | |
| 50000-99999 | |
| 40000-49999 | |
| 30000-39999 | 1 |
| 20000-29999 | 1 |
| 10000-19999 | |
| 1 to 9999 | |
| 0 | |
| No Response | |

**9e.) Is the yardage bank or loose?**

| | |
|---|---|
| Bank | 11 |
| Loose | 1 |
| No Response | |

**10a.) How much raw gold did you recover per yard of gravel processed or sluiced?**

| | |
|---|---|
| Less than .01 | |
| Between .01 and .02 | |
| Over .03 | |
| No Response | 1 |

**10b.) What was your cutoff grade?**

| | |
|---|---|
| .015 or Less | 1 |
| 0.02 | 1 |
| 0.025 | |
| No Response | 1 |

# SECTION D - EQUIPMENT AND CAPITAL INVESTMENT

**11.) What is your total investment in equipment?**

| | |
|---|---|
| 1-49999 | |
| 50000-99999 | |
| 100000-499999 | 1 |
| 500000-999999 | 1 |
| over 1000000 | |
| No Response | |

Total Investment in equipment:

| | Purchased Outside Canada | Purchased in the Rest of Canada | Purchased In Yukon |
|---|---|---|---|
| >1990 | 662,16 | 2,639,262 | 2,076,78 |
| 1990 | 60,162 | 734,936 | 223,167 |
| 1991 | 240,16 | 406,946 | 184,001 |
| 1992 | 60,162 | 324,446 | 145,001 |
| 1993 | 60,162 | 355,946 | 820,001 |
| 1994 | 60,162 | 491,446 | 511,001 |
| 1995 | 57,214 | 332,393 | 301,501 |
| 1996 | 173,66 | 275,279 | 374,334 |
| 1997 | 60,162 | 273,229 | 585,034 |
| 1998 | 60,162 | 272,779 | 384,234 |
| 1999 | 60,162 | 25,684 | 986,289 |
| 2000 | 57,21 | 227,113 | 430,789 |
| 2001 | | - | 150,000 |
| | **1,611,553** | **6,359,461** | **7,172,131** |

% of Spending by area:
Outside Canada
10.642%
In Canada
41.996%
In Yukon
47.362%

**12.) Have you purchased claims or leaseholds?**

| | |
|---|---|
| No | 1 |
| Yes | 1 |
| No Response | 1 |

Avg 726,764

**13a.) Did you lease claims?**

| | |
|---|---|
| No | 1 |
| Yes | 11 |
| No Response | 1 |

**13b.) At what cost did you lease claims?**

Various responses
Some gave a % amount others gave a solid number - summary not comparable.

## SECTION E - EMPLOYMENT AND WAGES PAID IN 2000

| | Total # | Reside in Yukon | Reside in the rest of Canada | Reside outside of Canada |
|---|---|---|---|---|
| Male Supervisors | 29 | 23 | 5 | 1 |
| Female Supervisors | 18 | 16 | 2 | 0 |
| Male Employees | 49 | 28 | 20 | 1 |
| Female Employees | 5 | 2 | 3 | 0 |
| | | | | |
| Totals | 101 | 69 | 30 | 2 |
| | | | | |
| % | 100.00% | 68.32% | 29.70% | 1.98% |

**14b.) How many employees are family members - not including yourself?**

| | |
|---|---|
| 0 | |
| 1 | 1 |
| 2 | |
| 3 | |
| N/A or No Response | |

**10a.) How much raw gold did you recover per yard of gravel processed or sluiced?**

| | |
|---|---|
| Less than .01 | |
| Between .01 and .02 | |
| Over .03 | |
| No Response | 1 |

**10b.) What was your cutoff grade?**

| | |
|---|---|
| .015 or Less | 1 |
| 0.02 | 1 |
| 0.025 | |
| No Response | 1 |

# SECTION D - EQUIPMENT AND CAPITAL INVESTMENT

**11.) What is your total investment in equipment?**

| | |
|---|---|
| 1-49999 | |
| 50000-99999 | |
| 100000-499999 | 1 |
| 500000-999999 | 1 |
| over 1000000 | |
| No Response | |

Total Investment in equipment:

| | Purchased Outside Canada | Purchased in the Rest of Canada | Purchased In Yukon |
|---|---|---|---|
| >1990 | 662,16 | 2,639,262 | 2,076,78 |
| 1990 | 60,162 | 734,936 | 223,167 |
| 1991 | 240,16 | 406,946 | 184,001 |
| 1992 | 60,162 | 324,446 | 145,001 |
| 1993 | 60,162 | 355,946 | 820,001 |
| 1994 | 60,162 | 491,446 | 511,001 |
| 1995 | 57,214 | 332,393 | 301,501 |
| 1996 | 173,66 | 275,279 | 374,334 |
| 1997 | 60,162 | 273,229 | 585,034 |
| 1998 | 60,162 | 272,779 | 384,234 |
| 1999 | 60,162 | 25,684 | 986,289 |
| 2000 | 57,21 | 227,113 | 430,789 |
| 2001 | | - | 150,000 |
| | **1,611,553** | **6,359,461** | **7,172,131** |

% of Spending by area:

Outside Canada

10.642%

In Canada

41.996%

In Yukon

47.362%

**12.) Have you purchased claims or leaseholds?**

| | |
|---|---|
| No | 1 |
| Yes | 1 |
| No Response | 1 |

Avg 726,764

**13a.) Did you lease claims?**

| | |
|---|---|
| No | 1 |
| Yes | 11 |
| No Response | 1 |

**13b.) At what cost did you lease claims?**

Various responses
Some gave a % amount others gave a solid number - summary not comparable.

## SECTION E - EMPLOYMENT AND WAGES PAID IN 2000

| | Total # | Reside in Yukon | Reside in the rest of Canada | Reside outside of Canada |
|---|---|---|---|---|
| Male Supervisors | 29 | 23 | 5 | 1 |
| Female Supervisors | 18 | 16 | 2 | 0 |
| Male Employees | 49 | 28 | 20 | 1 |
| Female Employees | 5 | 2 | 3 | 0 |
| | | | | |
| Totals | 101 | 69 | 30 | 2 |
| | | | | |
| % | 100.00% | 68.32% | 29.70% | 1.98% |

**14b.) How many employees are family members - not including yourself?**

| | |
|---|---|
| 0 | |
| 1 | 1 |
| 2 | |
| 3 | |
| N/A or No Response | |

**15a.) Do you provide your employees with Room and Board?**

| | |
|---|---|
| No | |
| N/A | |
| Yes | 1 |
| No Response | |

**15b.) Do you accommodate employees with spouses or families?**

| | |
|---|---|
| No | 11 |
| NA | |
| Yes | 11 |
| No Response | |

**15c.) What percentage of employees bring families to the site?**

| | |
|---|---|
| 0 | 1 |
| 20 | 1 |
| 25 | 1 |
| 30 | 1 |
| 50 | 1 |
| 100 | |
| N/A or No Response | 1 |

**16a.) What is the amount of gross wages including bonuses paid to placer mining employees in the Yukon in the 2000?**

| | |
|---|---|
| 0 | |
| 1-10000 | |
| 10000-50000 | |
| 50000-100000 | |
| 100000-200000 | |
| over 200000 | |
| N/A or No Response | 1 |

Wages paid by 20 respondents = $2,240,875
Average = $112,044

**16b.) Does this payment include payment to yourself?**

| | |
|---|---|
| No | 1 |
| Yes | |
| N/A or No Response | 11 |

**16c.) Does this include payment to family workers?**

| | |
|---|---|
| No | |
| Yes | 1 |
| N/A or No Response | 1 |

**17.) Approximately what % of net pay would a seasonal employee spend in the Yukon?**

| | |
|---|---|
| 10% | 1 |
| 15% | 1 |
| 40% | 1 |
| 50% | 1 |
| 75% | |
| 100% | |
| N/A or no response | 2 |

# SECTION F - OPERATING EXPENDITURES

**18.)** Operating Expenditures Summary - 24 of 33 Respondents filled in this section.

| | Total Amount Paid | Yukon | Rest | Outside |
|---|---|---|---|---|
| Wages and Salaries | 2342976 | 2074947 | 268029 | 0 |
| Claim/Royalty | 362985 | 314461 | 44024 | 4500 |
| Fuel & Lubricants | 1799881 | 1797704 | 2177 | 0 |
| Equipment R&M | 2192946 | 1983250 | 209522 | 174 |
| Equipment leases/rental | 87747 | 87747 | 0 | 0 |
| Accomodation & Food Camp | 373068 | 359737 | 12292 | 1039 |
| Services | 253417 | 226504 | 26769 | 144 |
| Permits, mining recorder | 65257 | 60144 | 5113 | 0 |
| Other | 745586 | 655748 | 89818 | 0 |
| Total | 8223843 | 7560242 | 657745 | 5857 |
| | | 91.93% | 8.70% | 0.07% |

**19a.) At the end of the 2000 season, did you have any LT debt associated with your placer operation?**

| | |
|---|---|
| No | 1 |
| Yes | 1 |
| N/A or No Response | |

**19b.) If yes - how much?**

| | |
|---|---|
| 20000-50000 | |
| 50000-100000 | |
| 100001-200000 | 1 |

**15a.) Do you provide your employees with Room and Board?**

| | |
|---|---|
| No | |
| N/A | |
| Yes | 1 |
| No Response | |

**15b.) Do you accommodate employees with spouses or families?**

| | |
|---|---|
| No | 11 |
| NA | |
| Yes | 11 |
| No Response | |

**15c.) What percentage of employees bring families to the site?**

| | |
|---|---|
| 0 | 1 |
| 20 | 1 |
| 25 | 1 |
| 30 | 1 |
| 50 | 1 |
| 100 | |
| N/A or No Response | 1 |

**16a.) What is the amount of gross wages including bonuses paid to placer mining employees in the Yukon in the 2000?**

| | |
|---|---|
| 0 | |
| 1-10000 | |
| 10000-50000 | |
| 50000-100000 | |
| 100000-200000 | |
| over 200000 | |
| N/A or No Response | 1 |

Wages paid by 20 respondents = $2,240,875
Average = $112,044

**16b.) Does this payment include payment to yourself?**

| | |
|---|---|
| No | 1 |
| Yes | |
| N/A or No Response | 11 |

**16c.) Does this include payment to family workers?**

| | |
|---|---|
| No | |
| Yes | 1 |
| N/A or No Response | 1 |

**17.) Approximately what % of net pay would a seasonal employee spend in the Yukon?**

| | |
|---|---|
| 10% | 1 |
| 15% | 1 |
| 40% | 1 |
| 50% | 1 |
| 75% | |
| 100% | |
| N/A or no response | 2 |

## SECTION F - OPERATING EXPENDITURES

**18.)** Operating Expenditures Summary - 24 of 33 Respondents filled in this section.

| | Total Amount Paid | Yukon | Rest | Outside |
|---|---|---|---|---|
| Wages and Salaries | 2342976 | 2074947 | 268029 | 0 |
| Claim/Royalty | 362985 | 314461 | 44024 | 4500 |
| Fuel & Lubricants | 1799881 | 1797704 | 2177 | 0 |
| Equipment R&M | 2192946 | 1983250 | 209522 | 174 |
| Equipment leases/rental | 87747 | 87747 | 0 | 0 |
| Accomodation & Food Camp | 373068 | 359737 | 12292 | 1039 |
| Services | 253417 | 226504 | 26769 | 144 |
| Permits, mining recorder | 65257 | 60144 | 5113 | 0 |
| Other | 745566 | 655748 | 89818 | 0 |
| Total | 8223843 | 7560242 | 657745 | 5857 |
| | | 91.93% | 8.70% | 0.07% |

**19a.) At the end of the 2000 season, did you have any LT debt associated with your placer operation?**

| | |
|---|---|
| No | 1 |
| Yes | 1 |
| N/A or No Response | |

**19b.) If yes - how much?**

| | |
|---|---|
| 20000-50000 | |
| 50000-100000 | |
| 100001-200000 | 1 |

| | |
|---|---|
| Over 200000 | |
| N/A or No Response | 2 |

## SECTION G - PRODUCTION

**20a.) At what level of raw gold production was your mine at in 2000?**

| | |
|---|---|
| Less than 100 | |
| 100-499 | |
| 500-999 | |
| 1000-1999 | |
| 2000-3999 | |
| Over 4000 | |
| N/A or No Response | |

**20b.) How many ounces of raw gold did you produce in 2000?**

| | |
|---|---|
| 0 | |
| 1 to 100 | |
| 101 to 200 | |
| 200 to 1000 | |
| 1000 to 2000 | |
| Over 2000 | |
| N/A or No Response | 1 |

**20c.) What was your average purity of gold in 2000?**

| | |
|---|---|
| 66 | 1 |
| 68.5 | |
| 75 to 80 | |
| 80 | 1 |
| 81 | 1 |
| 82 | |
| 83 | |
| 84 | |
| Over 84 | |
| N/A or No Response | |

**21a.) What were the yearly additional machining costs associated with the 1993 YPA requirements?**

| | |
|---|---|
| 0 or no response | 1 |
| 1 to 5000 | |
| 5001 to 10000 | |
| 10001 to 25000 | |
| Over 100000 | |

**21b.) What were the yearly labour costs associated with the 1993 YPA requirements?**

| | |
|---|---|
| 0 or no Response | 2 |
| 1 to 5000 | |
| 5001 to 10000 | 1 |
| Over 10000 | 1 |

**21c.) What were yearly other costs associated with the 1993 YPA Requirements?**

| | |
|---|---|
| 0 or no response | 2 |
| 50 | 1 |
| 960 | 1 |
| 1080 | 1 |
| 31900 | 1 |

**21d.) What were your total yearly costs of complying with 1993 YPA requirements?**

| | |
|---|---|
| 0 or no response | 1 |
| 1 to 5000 | |
| 5001 to 10000 | |
| 10001 to 20000 | |
| Over 100000 | |

**22a.) What were your 2000 machining costs of complying with YPA discharge standards?**

| | |
|---|---|
| 0 or no response | 2 |
| 1 to 5000 | |
| Over 5000 | 1 |

**22b.) What were your 2000 Labour costs of complying with YPA discharge standards?**

| | |
|---|---|
| 0 or no response | 2 |
| 1 to 500 | |
| 501 to 1000 | |
| 1001 to 1200 | |

**22c.) What were the 2000 other costs of complying with YPA discharge standards?**

| | |
|---|---|
| 0 or no response | 3 |

| | |
|---|---|
| Over 200000 | |
| N/A or No Response | 2 |

## SECTION G - PRODUCTION

**20a.) At what level of raw gold production was your mine at in 2000?**

| | |
|---|---|
| Less than 100 | |
| 100-499 | |
| 500-999 | |
| 1000-1999 | |
| 2000-3999 | |
| Over 4000 | |
| N/A or No Response | |

**20b.) How many ounces of raw gold did you produce in 2000?**

| | |
|---|---|
| 0 | |
| 1 to 100 | |
| 101 to 200 | |
| 200 to 1000 | |
| 1000 to 2000 | |
| Over 2000 | |
| N/A or No Response | 1 |

**20c.) What was your average purity of gold in 2000?**

| | |
|---|---|
| 66 | 1 |
| 68.5 | |
| 75 to 80 | |
| 80 | 1 |
| 81 | 1 |
| 82 | |
| 83 | |
| 84 | |
| Over 84 | |
| N/A or No Response | |

**21a.) What were the yearly additional machining costs associated with the 1993 YPA requirements?**

| | |
|---|---|
| 0 or no response | 1 |
| 1 to 5000 | |
| 5001 to 10000 | |
| 10001 to 25000 | |
| Over 100000 | |

**21b.) What were the yearly labour costs associated with the 1993 YPA requirements?**

| | |
|---|---|
| 0 or no Response | 2 |
| 1 to 5000 | |
| 5001 to 10000 | 1 |
| Over 10000 | 1 |

**21c.) What were yearly other costs associated with the 1993 YPA Requirements?**

| | |
|---|---|
| 0 or no response | 2 |
| 50 | 1 |
| 960 | 1 |
| 1080 | 1 |
| 31900 | 1 |

**21d.) What were your total yearly costs of complying with 1993 YPA requirements?**

| | |
|---|---|
| 0 or no response | 1 |
| 1 to 5000 | |
| 5001 to 10000 | |
| 10001 to 20000 | |
| Over 100000 | |

**22a.) What were your 2000 machining costs of complying with YPA discharge standards?**

| | |
|---|---|
| 0 or no response | 2 |
| 1 to 5000 | |
| Over 5000 | 1 |

**22b.) What were your 2000 Labour costs of complying with YPA discharge standards?**

| | |
|---|---|
| 0 or no response | 2 |
| 1 to 500 | |
| 501 to 1000 | |
| 1001 to 1200 | |

**22c.) What were the 2000 other costs of complying with YPA discharge standards?**

| | |
|---|---|
| 0 or no response | 3 |

**22d.) What were the total 2000 costs of complying with YPA discharge standards?**

| | |
|---|---|
| 0 or no response | 21 |
| 1 to 2500 | |
| 2501 to 5000 | |
| 9000 | 1 |
| 15600 | 1 |
| 100000 | 1 |

**23a.) What was the machine Cost of Complying with YPA Restoration for Seasonal Restoration?**

| | |
|---|---|
| 0 or no response | 2 |
| 1 to 5000 | |
| 5001 to 10000 | |
| 40000 | 1 |

**23b.) What was the labour cost of complying with the YPA requirements for seasonal restoration?**

| | |
|---|---|
| 0 or no response | 3 |
| 373.4 | 1 |
| 800 | 1 |
| 2000 | 1 |

**23c.) What are other costs associated with complying with YPA requirements for seasonal restoration?**

| | |
|---|---|
| 0 or no response | 3 |
| 1500 | 1 |
| 6000 | 1 |
| 9790 | 1 |

**23d.) What are the total costs associated with complying with YPA requirements for seasonal restoration?**

| | |
|---|---|
| 0 or no response | 2 |
| 1 to 5000 | |
| 5001 to 15000 | |
| 40000 | 1 |

**24a.) What were machinery costs associated with complying with YPA restoration costs for final restoration?**

| | |
|---|---|
| 0 or no response | 31 |
| 3600 | 1 |
| 19000 | 1 |

**24b.) What were the labour costs associated with complying with YPA restoration costs for final restoration?**

| | |
|---|---|
| 0 or no response | 3 |

**24c.) What were the other costs associated with complying with YPA restoration costs for final restoration?**

| | |
|---|---|
| 0 or no response | 3 |

**24d.) What were the total costs associated with complying with YPA restoration costs for final restoration?**

| | |
|---|---|
| 0 or no response | 31 |
| 3600 | 1 |
| 19000 | 1 |

**25.) As all restoration costs don't always happen yearly, what were the estimated costs to comply with YPA Standards to the end of 2000**

| | |
|---|---|
| 0 | 1 |
| 1 to 5000 | |
| 5001 to 10000 | |
| 10001 to 20000 | |
| 20001 to 40000 | |
| 50000 | 1 |
| N/A or No Response | 1 |

**26.) Have you become unprofitable because of the guidelines?**

| | |
|---|---|
| No | |
| Yes | |
| N/A or No Response | 2 |

**27a.) Do you believe your current operation is in compliance with the guidelines?**

| | |
|---|---|
| Yes | 2 |
| N/A or No Response | |

**27b.) Does anything need to be done to bring your mine into compliance?**

| | |
|---|---|
| Yes | |
| N/A or No Response | 2 |

**28.) Has the Yukon Placer Committee and the YPA impacted your ability to placer mine or how you mine?**

**22d.) What were the total 2000 costs of complying with YPA discharge standards?**

| | |
|---|---|
| 0 or no response | 21 |
| 1 to 2500 | |
| 2501 to 5000 | |
| 9000 | 1 |
| 15600 | 1 |
| 100000 | 1 |

**23a.) What was the machine Cost of Complying with YPA Restoration for Seasonal Restoration?**

| | |
|---|---|
| 0 or no response | 2 |
| 1 to 5000 | |
| 5001 to 10000 | |
| 40000 | 1 |

**23b.) What was the labour cost of complying with the YPA requirements for seasonal restoration?**

| | |
|---|---|
| 0 or no response | 3 |
| 373.4 | 1 |
| 800 | 1 |
| 2000 | 1 |

**23c.) What are other costs associated ith complying with YPA requirements for seasonal restoration?**

| | |
|---|---|
| 0 or no response | 3 |
| 1500 | 1 |
| 6000 | 1 |
| 9790 | 1 |

**23d.) What are the total costs associated with complying with YPA requirements for seasonal restoration?**

| | |
|---|---|
| 0 or no response | 2 |
| 1 to 5000 | |
| 5001 to 15000 | |
| 40000 | 1 |

**24a.) What were machinery costs associated with complying with YPA restoration costs for final restoration?**

| | |
|---|---|
| 0 or no response | 31 |
| 3600 | 1 |
| 19000 | 1 |

**24b.) What were the labour costs associated with complying with YPA restoration costs for final restoration?**

| | |
|---|---|
| 0 or no response | 3 |

**24c.) What were the other costs associated with complying with YPA restoration costs for final restoration?**

| | |
|---|---|
| 0 or no response | 3 |

**24d.) What were the total costs associated with complying with YPA restoration costs for final restoration?**

| | |
|---|---|
| 0 or no response | 31 |
| 3600 | 1 |
| 19000 | 1 |

**25.) As all restoration costs don't always happen yearly, what were the estimated costs to comply with YPA Standards to the end of 2000**

| | |
|---|---|
| 0 | 1 |
| 1 to 5000 | |
| 5001 to 10000 | |
| 10001 to 20000 | |
| 20001 to 40000 | |
| 50000 | 1 |
| N/A or No Response | 1 |

**26.) Have you become unprofitable because of the guidelines?**

| | |
|---|---|
| No | |
| Yes | |
| N/A or No Response | 2 |

**27a.) Do you believe your current operation is in compliance with the guidelines?**

| | |
|---|---|
| Yes | 2 |
| N/A or No Response | |

**27b.) Does anything need to be done to bring your mine into compliance?**

| | |
|---|---|
| Yes | |
| N/A or No Response | 2 |

**28.) Has the Yukon Placer Committee and the YPA impacted your ability to placer mine or how you mine?**

| | |
|---|---|
| Negatively | 1 |
| No impact or positive impact | 1 |
| No response | 11 |

**29a.) Compliance costs incurred so far**

- no costs have been quantified, but 5 report an increase in costs.

**29b.) Costs incurred during 2000 for bailing and settling ponds?**

| | |
|---|---|
| 0 | |
| 1 to 1000 | |
| 1001 to 2000 | |
| 2001 to 5000 | |
| 5001 to 10000 | |
| Over 10000 | |
| N/A or No Response | 1 |

**29c.) What costs did you incur for diversion channels required by YPA standards?**

| | |
|---|---|
| 0 | |
| 1 to 100 | 1 |
| 101 to 5000 | |
| 5001 to 10000 | |
| Over 10000 | |
| N/A or No Response | 1 |

**29d.) During 2000 did you put settling ponds required to comply with YPA standards on virgin ground?**

| | |
|---|---|
| No | 1 |
| Yes | |
| N/A or No Response | 1 |

**30a.) Are you in compliance with the fuel storage and handling requirements?**

| | |
|---|---|
| No | |
| Yes | 2 |
| N/A or No Response | |

*Two main reasons for non-compliance are:*

*Liner improperly installed*
*Additional berms are required*

**30b.) What costs did you incur to bring your fuel handling facilities into compliance?**

| | |
|---|---|
| 0 | |
| 1 to 1000 | |
| 1001 to 2000 | |

| | |
|---|---|
| 2001 to 5000 | |
| 10000 or more | |
| N/A or No Response | 1 |

**30c.) What are the total costs incurred already to meet guidelines**

| | |
|---|---|
| 0 or N/a | 2 |
| 1500 | 1 |
| 10000 | 1 |
| 15000 | 1 |
| Over 20000 | |

**30d.) What costs are still required to meet the requirements?**

| | |
|---|---|
| 0 or N/A | 2 |
| 1500 | 1 |
| 2500 | 1 |
| 20000 | |
| 40000 | 1 |

**31a.) Have you had to wait to receive a stream classification?**

| | |
|---|---|
| No | 2 |
| Yes | |
| N/A or No Response | |

**31b.) Did this impede or deter exploration activity?**

| | |
|---|---|
| N/A | |
| No | 1 |
| Yes | |
| No Response | |

**31c.) Has the classification of the stream where you mine caused you any extra cost?**

| | |
|---|---|
| No | 1 |
| Yes | |
| N/A or No Response | 1 |

**32a.) Did you use a consultant to prepare your water application?**

| | |
|---|---|
| No | 21 |
| Yes | |
| N/A or No Response | |

**32b.) Did you use the consultant prior to the YPA?**

| | |
|---|---|
| No | 2 |
| Yes | |

| | |
|---|---|
| Negatively | 1 |
| No impact or positive impact | 1 |
| No response | 11 |

**29a.) Compliance costs incurred so far**

- no costs have been quantified, but 5 report an increase in costs.

**29b.) Costs incurred during 2000 for bailing and settling ponds?**

| | |
|---|---|
| 0 | |
| 1 to 1000 | |
| 1001 to 2000 | |
| 2001 to 5000 | |
| 5001 to 10000 | |
| Over 10000 | |
| N/A or No Response | 1 |

**29c.) What costs did you incur for diversion channels required by YPA standards?**

| | |
|---|---|
| 0 | |
| 1 to 100 | 1 |
| 101 to 5000 | |
| 5001 to 10000 | |
| Over 10000 | |
| N/A or No Response | 1 |

**29d.) During 2000 did you put settling ponds required to comply with YPA standards on virgin ground?**

| | |
|---|---|
| No | 1 |
| Yes | |
| N/A or No Response | 1 |

**30a.) Are you in compliance with the fuel storage and handling requirements?**

| | |
|---|---|
| No | |
| Yes | 2 |
| N/A or No Response | |

*Two main reasons for non-compliance are:*

*Liner improperly installed*
*Additional berms are required*

**30b.) What costs did you incur to bring your fuel handling facilities into compliance?**

| | |
|---|---|
| 0 | |
| 1 to 1000 | |
| 1001 to 2000 | |

| | |
|---|---|
| 2001 to 5000 | |
| 10000 or more | |
| N/A or No Response | 1 |

**30c.) What are the total costs incurred already to meet guidelines**

| | |
|---|---|
| 0 or N/a | 2 |
| 1500 | 1 |
| 10000 | 1 |
| 15000 | 1 |
| Over 20000 | |

**30d.) What costs are still required to meet the requirements?**

| | |
|---|---|
| 0 or N/A | 2 |
| 1500 | 1 |
| 2500 | 1 |
| 20000 | |
| 40000 | 1 |

**31a.) Have you had to wait to receive a stream classification?**

| | |
|---|---|
| No | 2 |
| Yes | |
| N/A or No Response | |

**31b.) Did this impede or deter exploration activity?**

| | |
|---|---|
| N/A | |
| No | 1 |
| Yes | |
| No Response | |

**31c.) Has the classification of the stream where you mine caused you any extra cost?**

| | |
|---|---|
| No | 1 |
| Yes | |
| N/A or No Response | 1 |

**32a.) Did you use a consultant to prepare your water application?**

| | |
|---|---|
| No | 21 |
| Yes | |
| N/A or No Response | |

**32b.) Did you use the consultant prior to the YPA?**

| | |
|---|---|
| No | 2 |
| Yes | |

| | |
|---|---|
| N/A or No Response | |

**32c.) What was the cost of this in 2000?**

| | |
|---|---|
| 0 | |
| 250-500 | |
| 500-1000 | |
| N/A or No Response | 2 |

## SECTION I - IMPACT OF GOLD PRICE FLUCTUATIONS

**33a.) If the price of gold decreased by $25 how would your operation change?**

| | |
|---|---|
| No Change | |
| High Grade | |
| Shut Down Temporarily | |
| Go Out of business | 1 |
| Change Mining method and inc | |
| Other | 1 |
| NA or No Response | |

**33b.) If the price of gold decreased by $100 how would your operation change?**

| | |
|---|---|
| No Change | |
| High Grade | |
| Shut Down Temporarily | 1 |
| Go Out of business | 1 |
| Change Mining method and inc | |
| Other | 1 |
| NA or No Response | |

**33c.) If the price of gold decreased by more than $100 how would your operation change?**

| | |
|---|---|
| No Change | 1 |
| High Grade | |
| Shut Down Temporarily | |
| Go Out of business | 1 |
| Change Mining method and inc | |
| Other | 1 |
| NA or No Response | 1 |

**34a.) If the price of gold increased by $50 how would your operation change?**

| | |
|---|---|
| No Change | 1 |
| Lower Grades | |
| Sell | |

| | |
|---|---|
| Increase Capital Expenditures | |
| Other | |
| NA or No Response | 1 |

**34b.) If the price of gold increased by $125 how would your operation change?**

| | |
|---|---|
| No Change | |
| Mine Lower grades | |
| Sell Operation | |
| Increase Cap Expenditures | |
| Change Mining method and inc | |
| Other | * |
| NA or No Response | 1 |

** Most who said other said they would increase production and/or hire more staff*

## SECTION J - IMPACT OF FUEL COSTS

**35.) If the price of diesel increased by $.25 per liter how would this affect your operation?**

| | |
|---|---|
| No Change | |
| Mine Higher Grade | |
| Increase overall gold prod'n | |
| Sell Operation | 1 |
| Other | 1 * |
| NA or No Response | |

** Most who said other stated they would slow down or shut down completely*

**36a.) If the price of diesel increased, at what point would it cause you to stop mining?**

| | |
|---|---|
| 0.25 | |
| 0.35 | |
| 0.5 | |
| 0.75 | |
| N/A or No Response | 1 |

**36b.) Please indicate break even point $ per litre based on $400 gold.**

| | |
|---|---|
| 0.3 | |
| 0.5 | |
| 0.6 | 1 |
| 0.65 | 1 |
| 0.75 | |
| 0.8 | 1 |
| 0.85 | 1 |

| | |
|---|---|
| N/A or No Response | |

**32c.) What was the cost of this in 2000?**

| | |
|---|---|
| 0 | |
| 250-500 | |
| 500-1000 | |
| N/A or No Response | 2 |

## SECTION I - IMPACT OF GOLD PRICE FLUCTUATIONS

**33a.) If the price of gold decreased by $25 how would your operation change?**

| | |
|---|---|
| No Change | |
| High Grade | |
| Shut Down Temporarily | |
| Go Out of business | 1 |
| Change Mining method and inc | |
| Other | 1 |
| NA or No Response | |

**33b.) If the price of gold decreased by $100 how would your operation change?**

| | |
|---|---|
| No Change | |
| High Grade | |
| Shut Down Temporarily | 1 |
| Go Out of business | 1 |
| Change Mining method and inc | |
| Other | 1 |
| NA or No Response | |

**33c.) If the price of gold decreased by more than $100 how would your operation change?**

| | |
|---|---|
| No Change | 1 |
| High Grade | |
| Shut Down Temporarily | |
| Go Out of business | 1 |
| Change Mining method and inc | |
| Other | 1 |
| NA or No Response | 1 |

**34a.) If the price of gold increased by $50 how would your operation change?**

| | |
|---|---|
| No Change | 1 |
| Lower Grades | |
| Sell | |

| | |
|---|---|
| Increase Capital Expenditures | |
| Other | |
| NA or No Response | 1 |

**34b.) If the price of gold increased by $125 how would your operation change?**

| | |
|---|---|
| No Change | |
| Mine Lower grades | |
| Sell Operation | |
| Increase Cap Expenditures | |
| Change Mining method and inc | |
| Other | * |
| NA or No Response | 1 |

** Most who said other said they would increase production and/or hire more staff*

## SECTION J - IMPACT OF FUEL COSTS

**35.) If the price of diesel increased by $.25 per liter how would this affect your operation?**

| | |
|---|---|
| No Change | |
| Mine Higher Grade | |
| Increase overall gold prod'n | |
| Sell Operation | 1 |
| Other | 1 * |
| NA or No Response | |

** Most who said other stated they would slow down or shut down completely*

**36a.) If the price of diesel increased, at what point would it cause you to stop mining?**

| | |
|---|---|
| 0.25 | |
| 0.35 | |
| 0.5 | |
| 0.75 | |
| N/A or No Response | 1 |

**36b.) Please indicate break even point $ per litre based on $400 gold.**

| | |
|---|---|
| 0.3 | |
| 0.5 | |
| 0.6 | 1 |
| 0.65 | 1 |
| 0.75 | |
| 0.8 | 1 |
| 0.85 | 1 |

| | |
|---|---|
| N/A or No Response | 2 |

**For Reply or Information Contact:**
F.S. (Rick) Hirtle, CA
**BDO Dunwoody LLP**
#201, 571 – 6th Street NE
Salmon Arm, BC V1E 1R6
Tel: (250) 832-7171 Fax (250) 832-2429

**CONFIDENTIAL** ***APPENDIX B***

YUKON PLACER MINING SURVEY
FOR THE YUKON PLACER COMMITTEE REVIEW
UNDER THE APRIL 1, 1994 TERMS OF REFERENCE
AND THE YUKON PLACER AUTHORIZATION
with the support and cooperation of:
The Klondike Placer Mining Association (KPMA)

The information which you provide in this survey will be kept strictly confidential. Only aggregates for the total industry will be presented. Please respond to the following questions to the best of your ability (estimate reasonable values if precise data are not available). ***SHADED AREAS ARE OPTIONAL***

**SECTION A**

1. In what mining district of the Yukon is your placer mining operation situated? (Check one)

   ◯ Dawson ◯ Mayo ◯ Whitehorse or Watson Lake

   On what creek (stream) is the operation located? _____

2. a) What is the stream classification on which your Yukon placer operation is situated? (Check one)

   ◯ Class I ◯ Class II ◯ Class III ◯ Class IV

   b) Do you have a deferral? ◯ Yes ◯ No

3. Was this operation active in producing gold?

| | | |
|---|---|---|
| In 2001? | Yes | No |
| In 2000? | Yes | No |
| In 1999? | Yes | No |
| In 1998? | Yes | No |
| In 1997? | Yes | No |

**SECTION B**

4. How many years has this operation/company been in business? _____ years.

5. What best describes the ownership arrangement of this operation? (Check one only)

   ____ Unincorporated family operation ____ Incorporated business
   ____ Incorporated family operation ____ Partnership
   ____ Unincorporated business____ Other (specify) _____

6. In 2000 did you lease the property and claims worked or are you the owner? (Check one)

   ◯ Leaseholder ◯ Owner ◯ Combination

7. Where is your permanent address? (If an incorporated business, where is the registered business address?)

   Select one (1, 2, 3, 4, 5 or 6) and enter in the box ☐

   (1) Yukon
   (2) British Columbia
   (3) Other Canada
   (4) Alaska
   (5) Other USA
   (6) Other

   Country: _____

   b) For any financing, bank loans, etc., for this operation, in what region were they arranged?
   Select one (1, 2, 3, 4, 5 or 6) and enter in the box ☐

   c) In what region do you reside during winter?

   Select one (1, 2, 3, 4, 5 or 6) and enter in the box ☐

**SECTION C - 2000 OPERATIONS**

8. On what day in 2000 did you begin your placer mining operation in the Yukon (include mobilization, stripping and other mining-related operations)? _____

On what day did you shut down operations in 2000? _____

How many days in 2000 did you sluice or otherwise process pay gravel? _____ days

9. In 2000, how many cubic yards:

of gravel did you process or sluice? _____ $yd^3$ (1)

of waste did you strip? _____ $yd^3$ (2)

of material did you move for reclamation purposes _____ $yd^3$ (3)

of total material did you move? _____ $yd^3$ (4) = (1)+(2)+(3)

Is the yardage: ◯ bank or ◯ loose

**10. a) How much raw gold did you recover per yard of gravel processed or sluiced in 2000? (Check one)**

◯ (<.01 ounces/$yd^3$) ◯ (.02 - .03 ounces/$yd^3$)
◯ (.01 - .02 ounces/$yd^3$) ◯ (>.03 ounces/$yd^3$)

**b) What is your cutoff grade?** _____

**SECTION D - EQUIPMENT AND CAPITAL INVESTMENT**

11. Please list the major capital equipment used in your mining operation in 2000, such as bulldozers, loaders, draglines, backhoes, camp, trailers, generators, trucks, processing plant equipment, pumps, etc. Please include the size, the purchase cost and the location where you purchased each item (i.e. in Yukon, Rest of Canada, outside Canada). For ease you may group them as: Mining Mobile Equipment, Mining Processing Equipment, Mining Other, Camp, Auxiliary Equipment.

| Equipment Type, Size & Year | Quantity | Year Purchased or Built | Purchase Cost | Purchase Location |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Other | | | | |
| Total Investment | | | | |

Attach an extra sheet of paper if required.

12. Have you purchased claims or leaseholds?

○ No → Go to Question 14
○ Yes → At what cost? $ _____

13. Did you lease claims?

○ No → Go to Question 14
○ Yes → At what cost? $ _____

**SECTION E - EMPLOYMENT AND WAGES PAID 2000 (FOR YOUR PLACER ACTIVITY ONLY)**

14. How many people worked for the mine in 2000 – include stripping, maintenance and other activities?

| | | | Number of People Having Winter/Permanent Residence in | | |
|---|---|---|---|---|---|
| Type | Positions | Person Months* | Yukon | Rest of Canada | Outside Canada |
| Supervisor/Manager/Self/Family Male | | | | | |
| Supervisor/Manager/Self/Family Female | | | | | |
| All Other Employees - Male | | | | | |
| All Other Employees - Female | | | | | |
| Total | | | | | |

*(e.g. 1 person working 2 months plus another person working 5 months = 7 person months of employm ent)

How many of these employees are family members (not including yourself)? _____ family members

15. a) Do you provide "room and board" to your employees? Yes No

b) Do you accommodate employees with spouses or families? Yes No

c) What % of your employees bring families to the site: _____%

16. a) How much in gross wages including bonuses but before deductions, did you pay your placer mining employees in the Yukon in 2000?

$_____ paid to employees in 2000

b) Does this include payment to yourself? Yes No

c) Does this include payment of family workers? Yes No

17. Approximately what percent of his/her net pay would the average seasonal employee who winters outside the Yukon spend in the Yukon? (Estimate as best you can) $ _____

## SECTION F - OPERATING EXPENDITURES

18. What operating purchases/expenditures associated with your Yukon placer operations did your company make in 2000?

| | | % Share of Expenditures in | | | |
|---|---|---|---|---|---|
| | | Yukon | Rest of Canada | Outside Canada | Total |
| Wages and salaries paid* | $ | % | + % | + % | = 100% |
| Claim/Royalty to owner | $ | % | + % | + % | = 100% |
| Fuel & Lubricants | $ | % | + % | + % | = 100% |
| Equipment repair & maintenance | $ | % | + % | + % | = 100% |
| Equipment lease or rental | $ | % | + % | + % | = 100% |
| Accommodation & food "camp" | $ | % | + % | + % | = 100% |
| Services | $ | % | + % | + % | = 100% |
| Permits, mining recorder | $ | % | + % | + % | = 100% |
| Other** | $ | % | + % | + % | = 100% |
| Total Operating | $ | % | + % | + % | = 100% |

*Include benefits and payments to working owners/partners plus any bonuses paid.
**Exclude depreciation and Income taxes.

19. At the end of the 2000 season, did you have any long-term debt associated with your Yukon placer operation?

◯ No long-term debt (more than one year term)

or

◯ Yes, some long-term debt. How much? $ _____

## SECTION G - PRODUCTION

20. At what level of raw gold production was your mine in 2000? (Check one)

◯ Less than 100 ounces in 2000
◯ 100 – 499 ounces in 2000
◯ 500 – 999 ounces in 2000
◯ 1000 – 1999 ounces in 2000
◯ 2000 – 3999 ounces in 2000
◯ more than 4000 ounces in 2000

How may ounces of raw gold did you produce in 2000? _____ ounces.

What was your average purity of gold in 2000? _____ %.

## SECTION H - IMPACT OF THE YUKON PLACER AUTHORIZATION (YPA)

21. The Yukon Placer Authorization dated June 23, 1993 resulted in the requirement to achieve specific standards. We are trying to determine as best as possible the yearly additional cost of complying with the authorization. Would you please indicate for the 2000 year what the cost was of putting in your current settling facilities to comply with the YPA discharge standards. (Please estimate)

| Machine | Machine hours | Cost of Machine | Total |
|---|---|---|---|
| | hrs. | $ | $ |
| | hrs. | $ | $ |
| | hrs. | $ | |

| Man Hours | Cost of Man Hours | Total |
|---|---|---|
| hrs. | $ | $ |
| hrs. | $ | $ |
| hrs. | $ | $ |

| Other | Cost of Other | Total |
|---|---|---|
| hrs. | $ | $ |
| hrs. | $ | $ |
| hrs. | $ | $ |

**TOTAL OF ALL ABOVE: $**_____

Comments: _____

22. For the year 2000 what was the estimated cost of complying with the YPA discharge standards to maintain your settling facilities?

| Machine | Machine hours | Cost of Machine | Total |
|---|---|---|---|
| | hrs. | $ | $ |
| | hrs. | $ | $ |
| | hrs. | $ | |

| Man Hours | Cost of Man Hours | Total |
|---|---|---|
| hrs. | $ | $ |
| hrs. | $ | $ |
| hrs. | $ | $ |

| Other | Cost of Other | Total |
|---|---|---|
| hrs. | $ | $ |
| hrs. | $ | $ |
| hrs. | $ | $ |

**TOTAL OF ALL ABOVE: $**_____

Comments:_____

23. For the year 2000 what was the estimated cost of complying with the YPA restoration costs for seasonal restoration?

| Machine | Machine hours | Cost of Machine | Total |
|---|---|---|---|
| | hrs. | $ | $ |
| | hrs. | $ | $ |
| | hrs. | $ | $ |
| | hrs. | $ | |

| Man Hours | Cost of Man Hours | Total |
|---|---|---|
| hrs. | $ | $ |
| hrs. | $ | $ |
| hrs. | $ | $ |
| hrs. | $ | $ |

| Other | Cost of Other | Total |
|---|---|---|
| hrs. | $ | $ |
| hrs. | $ | $ |
| hrs. | $ | $ |

**TOTAL OF ALL ABOVE: $**_____

Comments: _____

24. For the year 2000 what was the estimated cost of complying with the YPA restoration costs for final restoration?

| Machine | Machine hours | Cost of Machine | Total |
|---|---|---|---|
| | hrs. | $ | $ |
| | hrs. | $ | $ |
| | hrs. | $ | $ |
| | hrs. | $ | |

| Man Hours | Cost of Man Hours | Total |
|---|---|---|
| hrs. | $ | $ |
| hrs. | $ | $ |
| hrs. | $ | $ |
| hrs. | $ | $ |

| Other | Cost of Other | Total |
|---|---|---|
| hrs. | $ | $ |
| hrs. | $ | $ |
| hrs. | $ | $ |

**TOTAL OF ALL ABOVE: $**_____

Comments: _____

25. As all restoration costs do not always happen yearly, what were the estimated costs (if restoration was not done) to comply with YPA standards at the end of 2000? $_____.

26. Have any of your ore reserves become unprofitable because of the guidelines?

○ No or ○ Yes If yes, how much? $_____

27. Do you believe your current operation is in compliance with the guidelines?

○ Don't know
○ Yes
○ No → What needs to be done to make your mine in compliance? _____
_____
_____

28. Has the Yukon Placer Committee and the YPA impacted on your ability to placer mine or how you mine? Please describe._____
_____
_____
_____.

29. Are there costs other than those noted above that have had to be incurred to comply with the YPA?
a) What compliance costs have you incurred so far?
_____
_____
_____
_____
_____
_____
_____
Attach an extra sheet of paper if required.

b) What costs during 2000 did you incur for bailing out your settling ponds? $_____
Describe_____
_____

c) During 2000 what costs did you incur for diversion channels required to comply with the YPA standards?
Describe_____
_____

d) During 2000 did you put settling ponds required to comply with the YPA standards on virgin ground?
Describe:_____
_____
_____

30. a) Are you in compliance with the fuel storage and handling requirements?

○ Don't know
○ Yes
○ No → What needs to be done to make your mine in compliance? _____
_____
_____

b) During 2000 what costs did you incur to bring your fuel handling facilities into compliance with the standard?
_____.

c) What costs need to be incurred to make your operation in compliance with the requirements?

| | Expenditures to Meet Guidelines | | |
|---|---|---|---|
| Actual to Date | Capital | Operating | Total |
| 2000 | $ | $ | $ |
| | $ | $ | $ |

| Required | Capital | Operating | Total |
|---|---|---|---|
| 2000 | $ | $ | $ |
| | $ | $ | $ |

31. a) Have you had to wait to receive a stream classification?

- ○ Yes
- ○ No
- ○ N/A

b) Did this impede or deter exploration activity?

- ○ Yes
- ○ No
- ○ N/A

Explain:

_____

_____.

c) Has the classification of the stream where you mine caused you extra cost? Please explain:

_____

_____

_____

32. a) Did you use a consultant to prepare your water application ? Yes_____ No_____

b) Did you use a consultant prior to the YPA? Yes_____ No_____

c) What was the cost of this in 2000? $_____

**SECTION I - IMPACT OF GOLD PRICE FLUCTUATIONS**

The price of gold is a critical factor affecting the financial health of the Yukon placer mining industry. Please answer the following questions to the best of your ability as to the impact of different gold prices on your operation.

The average price of gold for the 2000 season was approximately ±$400 per fine ounce ($Canadian).

33. a) If the price of gold decreased by $25 to $375 ($ Canadian) how would your operation change? (Check one)

- ◯ No change
- ◯ High grade → Cut overall gold production by_____%
- ◯ Shut down temporarily for the year
- ◯ Go out of business/sell operation
- ◯ Change method of mining and increase capital expenditure
- ◯ Other (specify) _____

b) If the price of gold decreased by $100 to $300 ($ Canadian) how would your operation change? (Check one)

- ◯ No change
- ◯ High grade → Cut overall gold production by_____%
- ◯ Shut down temporarily for the year
- ◯ Go out of business/sell operation
- ◯ Other (specify) _____

c) If the price of gold decreased by >$100 to <$300 ($ Canadian) how would your operation change? (Check one)

- ◯ No change
- ◯ High grade → Cut overall gold production by_____%
- ◯ Shut down temporarily for the year
- ◯ Go out of business/sell operation
- ◯ Other (specify) _____

34. a) If the price of gold increased by $50 to $450 ($ Canadian) how would your operation change? (Check one)

- ◯ No change
- ◯ Mine lower grades → Increase overall gold production by_____%
- ◯ Sell operation
- ◯ Increase capital expenditure Explain: _____
- ◯ Other (specify) _____

b) If the price of gold increased by $125 to $525 ($ Canadian) how would your operation change? (Check one)

- ◯ No change
- ◯ Mine lower grades → Increase overall gold production by_____%
- ◯ Sell operation
- ◯ Increase capital expenditure Explain: _____
- ◯ Other (specify) _____

**SECTION J - IMPACT OF FUEL COSTS**

Based on $400 Gold/$275 $US

35. If the price of diesel increased by $.25 ($ Canadian) per liter how would this affect your operation? (Check one)

- ◯ No change
- ◯ Mine higher grades → Increase overall gold production by_____%
- ◯ Sell operation
- ◯ Other (specify) _____

36. If the price of diesel increased at what point would it cause you to stop mining? (Based on the gold price assumption noted above.) (Check one)

- ◯ $.25 per litre
- ◯ $.35 per litre
- ◯ $.50 per litre
- ◯ $.75 per litre
- ◯ $ 1.00 per litre
- ◯ >$ 1.00 per litre

Please indicate the break point: $_____ per litre based on $400 gold/$275 $US

37. Will you give us your name and address?

Name:

Address:

Telephone: Postal Code:

**SECTION J - DO YOU HAVE ANY ADDITIONAL COMMENTS?** e.g. the role of gold prices, or government regulations on the viability of your placer operation. (Attach a separate sheet if needed.)

_____
_____
_____